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COS40004 - Topics in Computer Science Reflection Report

Semester 2, 2019

**Alignment with Intended Unit Learning Outcomes**

*ULO 1: Investigate and explain a specialised or niche topic in Computer Science*

The following pieces demonstrate my ability in relation to this ILO:

* The general knowledge regarding performance testing in test plan ( 1st documentation): understanding its important role, how a testing plan is built steps by steps.
* Understand tools: how the Jmeter works, how to use the Apache Jmeter to record, produce, run and get the results from the test. How to run the test in BlazeMeter with Jmeter test scripts.

*ULO 2: Analyse and evaluate information on an advanced, state-of-the-art, prototype or specialised Computer Science topic*

The following pieces demonstrate my ability in relation to this ILO:

* Researching and nderstanding the test results by viewing the statistics and graphs as well as the expected results.
* Using different tools to run test and understand their pros and cons.

*ULO 3: Communicate findings to others in appropriate ways*

The following pieces demonstrate my ability in relation to this ILO:

* Writing the reports and analysing the test.
* Attending interviews and getting ideas of supervisors about template, challenges ( Testing a secured website: Vodafone), researching the both text and video marterial relate to the unit.

*ULO 4: Demonstrate autonomy and responsibility in self-directed work*

The following pieces demonstrate my ability in relation to this ILO:

* Self-learning and produce the test plan.
* Learning Apache Jmeter to record test scritpts and run the test with Jmeter and BlazeMeter.
* Research the metrics, requirements of load testing, how the testing process runs, way of reading and understanding the test result and skills of analysing the test result and evaluating the performane of an application.

**Feedback Advice From Reviewers: Supervisor and** **Nicholas Kaloger**

“*The comments specifically for your proposal are as follows: Please be careful about security and privacy issues if you want to use the real-life Vodafone website as the testing object.”* -Supervisor

* Vodafone is very secured website and testing it is a challenge. However, I can use load testing for it by installing Jmeter CA certificate (ApacheJMeterTemporaryRootCA.crt) and certificate the browser that use to record the https. Regarding the privacy, I use my own Vodafone account for the test, but I believe that I can control my privacy information and it is just use for the test as well as submitting to the supervisor.

*“It could be useful to delve into the target audience for this report, as by doing so you will be  
able to shape the level of technicality in the language used as well as outline the overall  
purpose of the report.”- Nicholas Kaloger*

* I mentioned in the report that it is for the unit COS40004. This report is just apart of the test plan. Although it is more about learning and experiencing in doing the performance test, it can be a report for Vodafone to revise their service.

*“For clarity it may be wise to put your timeline and table in an appendix or change the  
orientation of the page to landscape in order to further enhance the readability of the chart”-* *Nicholas Kaloger*

* I have included the timeline in the Grantt Chart in the report content because it is a requirement for the report. Changing the orientation of the page to landscape is good to have a bigger figure, however, it will impact on the reading flow.

*“It may be a good idea to look into more than just two sources of information in order to gain a  
wider understanding of the topics discussed.”- Nicholas Kaloger*

* It is a proposal report, so it is more about design than research. However, I have fully references of the book I’ve used them in the report.

**Reflection**

*The most important things I learnt:*

The testing process is an important stage in building and adding a software development. In this unit, I have learning to build the test plan and whole process of developing, running, analysing a test in steps by steps. Although this is just a small piece of testing process, I may gain knowledge and related testing skills, experience in self-learning process and problem solving.

*The things that helped me most were:*

User’s manual of Jmeter, related testing-report templates, books and testing instruction video on youtube are the things help me most in this unit.

*I found the following topics particularly challenging:*

The challenging of topic is not only limited time for learning the full process and getting feedbacks and response in it but also limited resource and tools.

*I found the following topics particularly interesting:*

* Freedom to choose the approach to the topic: produce a technical document or educational document.
* The topic is practical and requires spending time to learn and solve the problems.
* Self-learning of whole process from building a test plan, creating the test scripts, run it.

*I still need to work on the following areas:*

* Run the load test without using the user interface in Jmeter.
* *Run the test in different tools.*

*This unit will help me in the future:*

The testing plan and process is an important phrase in the Software Software Development Life Cycle. Therefore, by learning this unit, I have not only gained knowledge and experience in developing a testing plan, but also the way to evaluate product I produce by measuring the performance, finding and fixing the faults.

*If I did this unit again I would do the following things differently:*

* Trying to run the test more load in many times and longer time.
* Trying to run the load test without using the user interface in Jmeter.
* Working actively and connecting with group to seek for ideas and feedbacks.
* Complete the test earlier to get more feedbacks from reviewers.